

## REMARKS

The Applicant respectfully requests further examination and reconsideration in view of the amendments above and the arguments set forth fully below. Claims 1, 2, 4-13, 15-24, 26-36 and 38-45 were previously pending in this application. Within the Office Action, Claims 1, 2, 4-13, 15-24, 26-36 and 38-45 have been rejected. By the above amendment, Claims 1, 12, 23, 35 and 45 have been amended. Accordingly, Claims 1, 2, 4-13, 15-24, 26-36 and 38-45 are currently pending.

### **Rejections under 35 U.S.C. § 112**

Within the Office Action, Claims 1, 12, 23, 35 and 45 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, it is stated within the Office Action, that the claim language “utilizing a search module” should be changed to “utilizing a research module.” While the applicant does not agree with this rejection, as there is no other search module referred to within the claims, in order to further the prosecution of this application, the claims have all been amended to specify “utilizing a research module,” per the Examiner’s suggestion. Accordingly, the claims are definite and do particularly point and distinctly claim the subject matter which applicant regards as the invention. It is therefore respectfully requested that this rejection be withdrawn.

### **Rejections under 35 U.S.C. § 103**

Within the Office Action, Claims 1, 2, 4-13, 15-24, 26-36 and 38-45 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,778,367 to Wesinger Jr. et al. (“Wesinger”) in view of U.S. Patent No. 5,613,110 to Stuart (“Stuart”). The applicant respectfully disagrees.

Wesinger teaches an automated on-line information service and directory, particularly for the world wide web. Wesinger teaches that a computer network and a database are used to provide a hardware-independent, dynamic information system in which the information content is entirely user-controlled. [Wesinger, Abstract] When accessing the database, Wesinger teaches that the user is given the options of searching the database, adding a new entry, updating an existing entry, changing the user’s password or logging in. [Wesinger, col. 5, lines 23-25]

Wesinger further teaches that when the user selects the Search option, the user is allowed to select between different searching methods, including searching by Categories (going through a categories list), by Example (querying each field of the entries), and by Keyword (specifying a keyword). [Wesinger, col. 5, lines 30-40, Figure 2H] Wesinger does not teach that each utilization of the search module includes the availability of all types of available searches at any location within the database.

As recognized within the Office Action, Wesinger does not teach a dichotomous key search. Wesinger does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Specifically, Wesinger does not teach that any of a keyword search, hierarchical search, dichotomous key search and parametric search can be used at any location within the database. Wesinger only teaches searching the entire database, but not limiting the search to a segment or sub-segment of the database.

Stuart teaches an indexing method and apparatus facilitating a binary search of digital data. Stuart teaches that an ordered index file is created for archived report data wherein each index file contains a series of 4-byte offsets into the report data. [Stuart, Abstract] Stuart also teaches that upon later retrieval from the report data, a binary search is performed for a key(s) that is contained in a search query, using the index field offsets to determine the order in which to retrieve the report data fields. [Stuart, Abstract] According to the teachings of Stuart, the binary search resolves each key in the search query to a range of index offsets corresponding to report rows that match the query. [Stuart, Abstract] This binary search is not a dichotomous key search, as taught and claimed in the present invention.

Stuart also does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. There is no motivation to warrant the combination of Wesinger and Stuart. There is no hint, teaching or suggestion in either of Wesinger or Stuart to warrant their combination.

This is a classic case of impermissibly using hindsight to make a rejection based on obviousness. The Court of Appeals for the Federal Circuit has stated that “it is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” In Re Fritch, 972 F.2d, 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). As discussed above, Wesinger and Stuart do not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search, as

claimed. As recognized within the Office Action, Wesinger does not teach a dichotomous key search. Stuart teaches utilizing a binary search, but not a dichotomous key search, as taught and claimed by the present invention. Within the Office Action, it is stated that

[i]t would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Stuart into the invention of Wesinger because Wesinger suggested that multiple search methods are available for user and the combination would reduce the memory access when using binary search, and providing user more search methodologies. [Office Action, page 6]

It is only with the benefit of the present claims, as a “template” that there is any motivation to combine the binary search of Stuart with the automated on-line information service of Wesinger. No such motivation can be found in the teachings of either of the references. Wesinger does teach utilizing different search methods, but not a dichotomous key method, which was available at the time of the filing of Wesinger. To conclude that the combination of Wesinger and Stuart is obvious, based on the teachings of these references, is to use hindsight based on the teachings of the present invention and to read much more into Wesinger and Stuart than their actual teachings. This is simply not permissible based on the directive from the Court of Appeals for the Federal Circuit.

It is well settled that to establish a *prima facie* case of obviousness, three basic criteria must be met:

- 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- 2) there must be a reasonable expectation of success; and
- 3) the prior art reference, or references, must teach or suggest all the claim limitations. MPEP § 2143.

The burden of establishing a *prima facie* case of obviousness based on the teachings of Wesinger and Stuart has not been met within the Office Action.

There is no motivation to combine the teachings of Stuart with Wesinger. Stuart teaches facilitating a binary search of digital data. Stuart is only cited because it teaches a binary search. There is no hint, teaching or suggestion in either Stuart or Wesinger to motivate one skilled in the art to combine their teachings. It is only with the benefit of the presently claimed invention as a “template” that one would consider combining the binary search of Stuart with the automated on-line information service of Wesinger.

Even if considered proper, the combination of Wesinger and Stuart does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Neither, Wesinger, Stuart nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search.

In contrast to the teachings of Wesinger and Stuart, the method of and apparatus for performing a research task of the present invention, interchangeably utilizes a multitude of search methodologies. Specifically, utilizing a search module, a user is able to selectively utilize one or more search methodologies including keyword search, hierarchical search, dichotomous key search and parametric search to correlate a search criteria to a searchable database for generating one or more matching items. It is further taught within the present specification that

[a]t each node within the tree, the user is presented with the option of using any one or combinations of the four search methodologies utilized by the research system. The four search methodologies are keyword search, hierarchical tree search, dichotomous key search, and parametric search. Regardless as to which search methodology or search methodologies are used to reach a particular node, the user can utilize any of the four search methodologies to further refine the search and move further down the directory tree structure. The user may also navigate back up the directory tree structure to a higher node, and once again have the option to use any of the four search methodologies to refine the search from the current node and move further down the directory tree structure.

[Present Specification, page 43, lines 6-15].

Therefore, a user is able to navigate the directory tree structure, utilizing any one of the four search methodologies in any combination to reach the desired result. As discussed above, neither Wesinger, Stuart nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search at any location within the database.

The independent Claim 1 is directed to a method of accessing information within a directory tree structure. The method of Claim 1 comprises formatting a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data

corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, accessing a particular node within the directory tree structure utilizing a research module including keyword search, hierarchical search, and dichotomous key search, wherein when accessing each of the nodes within the directory tree structure utilizing the research module, each of the search methodologies including keyword search, hierarchical search, and dichotomous key search, are available at any location within the searchable database, setting one or more search parameters corresponding to the set of parameters of the particular node, and performing a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As described above, the combination of Wesinger and Stuart is not proper. As also discussed above, neither Wesinger, Stuart nor their combination teach a dichotomous key search as implemented in the present invention. As further discussed above, neither Wesinger, Stuart nor their combination teaches that each utilization of a research module includes availability of any of a keyword search, hierarchical search, and dichotomous key search when accessing each of the nodes within the directory tree structure at any location within the searchable database. For at least these reasons, the independent Claim 1 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 2 and 4-11 all depend on the independent Claim 1. As described above, the independent Claim 1 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 2 and 4-11 are all also allowable as being dependent on an allowable base claim.

The independent Claim 12 is directed to a research system for accessing information within a directory tree structure. The research system of Claim 12 comprises means for formatting a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, means for accessing a particular node within the directory tree structure utilizing a research module including keyword search, hierarchical search, and dichotomous key search, wherein when accessing each of the nodes within the directory tree structure utilizing the research module, each of the search methodologies including keyword search, hierarchical

search, and dichotomous key search, are available at any location within the searchable database, means for setting one or more search parameters corresponding to the set of parameters of the particular node, and means for performing a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As described above, the combination of Wesinger and Stuart is not proper. As also discussed above, neither Wesinger, Stuart nor their combination teach a dichotomous key search as implemented in the present invention. As further discussed above, neither Wesinger, Stuart nor their combination teaches that each utilization of a research module includes availability of any of a keyword search, hierarchical search, and dichotomous key search when accessing each of the nodes within the directory tree structure at any location within the searchable database. For at least these reasons, the independent Claim 12 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 13 and 15-22 all depend on the independent Claim 12. As described above, the independent Claim 12 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 13 and 15-22 are all also allowable as being dependent on an allowable base claim.

The independent Claim 23 is directed to a research system for accessing information within a directory tree structure. The research system of Claim 23 comprises a research server configured to format a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, to access a particular node within the directory tree structure utilizing a research module including keyword search, hierarchical search, and dichotomous key search, wherein when accessing each of the nodes within the directory tree structure utilizing the research module, each of the search methodologies including keyword search, hierarchical search, and dichotomous key search, are available at any location within the searchable database, to set one or more search parameters corresponding to the set of parameters of the particular node, and to perform a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node,

thereby generating one or more matching discrete data items. As described above, the combination of Wesinger and Stuart is not proper. As also discussed above, neither Wesinger, Stuart nor their combination teach a dichotomous key search as implemented in the present invention. As further discussed above, neither Wesinger, Stuart nor their combination teaches that each utilization of a research module includes availability of any of a keyword search, hierarchical search, and dichotomous key search when accessing each of the nodes within the directory tree structure at any location within the searchable database. For at least these reasons, the independent Claim 23 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 24 and 26-34 all depend on the independent Claim 23. As described above, the independent Claim 23 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 24 and 26-34 are all also allowable as being dependent on an allowable base claim.

The independent Claim 35 is directed to a network of devices for accessing information within a directory tree structure. The network of devices of Claim 35 comprises one or more computer systems configured to establish a connection with other systems, and a research server coupled to the one or more computer systems to format a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, to access a particular node within the directory tree structure utilizing a research module including keyword search, hierarchical search, and dichotomous key search, wherein when accessing each of the nodes within the directory tree structure utilizing the research module, each of the search methodologies including keyword search, hierarchical search, and dichotomous key search, are available at any location within the searchable database, to set one or more search parameters corresponding to the set of parameters of the particular node, and to perform a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As described above, the combination of Wesinger and Stuart is not proper. As also discussed above, neither Wesinger, Stuart nor their combination teach a dichotomous key search as implemented in the present invention. As further discussed above, neither Wesinger, Stuart

nor their combination teaches that each utilization of a research module includes availability of any of a keyword search, hierarchical search, and dichotomous key search when accessing each of the nodes within the directory tree structure at any location within the searchable database. For at least these reasons, the independent Claim 35 is allowable over the teachings of Wesinger, Stuart and their combination.

Claims 36 and 38-44 all depend on the independent Claim 35. As described above, the independent Claim 35 is allowable over the teachings of Wesinger, Stuart and their combination. Accordingly, Claims 36 and 38-44 are all also allowable as being dependent on an allowable base claim.

The independent Claim 45 is directed to a method of accessing information within a directory tree structure. The method of Claim 45 comprises formatting a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, accessing a particular node within the directory tree structure utilizing a research module, the research module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search, wherein each utilization of the research module includes the availability of the keyword search, the hierarchical search, the dichotomous key search, and the parametric search at any location within the searchable database, setting one or more search parameters corresponding to the set of parameters of the particular node, and performing a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As described above, the combination of Wesinger and Stuart is not proper. As also discussed above, neither Wesinger, Stuart nor their combination teach a dichotomous key search as implemented in the present invention. As also further discussed above, even if considered proper, neither Wesinger, Stuart nor their combination teach that each utilization of the research module includes the availability of the keyword search, the hierarchical search, the dichotomous key search, and the parametric search at any location within the searchable database. For at least these reasons, the independent Claim 45 is allowable over the teachings of Wesinger, Stuart and their combination.



PATENT

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For the reasons given above, Applicant respectfully submits that claims 1, 2, 4-13, 15-24, 26-36 and 38-45 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,  
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